

[54] **AMBULATORY ECG ANALYZER AND RECORDER**

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[56] **References Cited**

U.S. PATENT DOCUMENTS

3,658,055	4/1972	Abe et al.	128/703
3,830,228	8/1974	Foner	128/696
3,880,147	4/1975	Gruenke et al.	128/702
3,903,874	9/1975	Shakespeare	128/696
4,023,564	5/1977	Valiquette et al.	128/708
4,090,505	5/1978	Mortara	128/702
4,112,930	9/1978	Feldman et al.	128/704

4,170,227	10/1979	Feldman et al.	128/704
4,170,992	10/1979	Dillman	128/702
4,193,393	3/1980	Schlager	128/702
4,240,442	12/1980	Andresen et al.	128/708
4,263,919	4/1981	Levin	128/708

FOREIGN PATENT DOCUMENTS

00419 10/1981 PCT Int'l Appl. .

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[57] **ABSTRACT**

An ambulatory cardiac analyzer and recorder includes an allocation and priority scheme which has quotas for classes of QRS events and priority between types of events within a class. The quality of a low priority event is used to replace a similar type of event when the memory is full. The peak detection, QRS identification and classification circuit process and correlate information from both of two input channels. This allows quicker and more accurate determination of QRS waveforms as well as typical QRS waveforms.

20 Claims, 16 Drawing Figures

